

REMARKS

Claims 1, 2, 4-9, 16, 17 and 19-33 were pending and under consideration; claims 3, 10-15 and 18 were previously canceled without prejudice.

In the Office Action of April 4, 2011, claims 1, 2, 4-8, 16, 17, 19-23 and 27-33 were rejected under 35 U.S.C. § 102(b) as being antipathies by U.S. Patent No. 6,566,697 (issued to Fox; hereinafter “Fox”); claims 9 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fox; claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Fox in view of U.S. Patent No. 6,624,456 (issued to Fossum; hereinafter “Fossum”); claim 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fox in view of applicant’s admitted prior art (hereinafter “AAPA”).

In response, and without conceding the merits of the rejections, claims 1, 2, 4-9, 16, 17, 20-25, 27, 29, 30, 32 and 33 have been amended to address the noted rejections and some additional informalities. No new matter has been added. Applicants respectfully traverse the rejections and request reconsideration.

Independent claims 1, 16, 27, 30, 32 and 33 have been amended to indicate that the driver configuration unit sets both a channel potential on the turned-on drain transistors and a channel potential on the turned-on transfer transistors higher than the potential which depletes the photoelectric converting elements. The specification of the instant applicant explains, “By setting both the channel potential on the turned-on drain transistor and the channel potential on the turned-on transfer transistor higher than a potential for depleting the photodiode, the signal charge of the photodiode can be completely transferred from both the transfer transistor and the drain transistor.” *See*, Para. 0128 of the published instant application (U.S. 2004/0130757). At least this feature is not anticipated or obvious in view of the cited art.

Fox fails to teach or even fairly suggest this feature. Fox discloses “the 5T pixel is implemented with a photodetector constituted by a pinned photodiode (PPD) so that the photosite can be fully depleted of charge upon charge transfer from the photosite through the sense node (or storage node or storage site) and/or from the photosite through the exposure control transistor to a drain.” *See*, Col. 8, Ln. 58-63. That is, Fox at most suggests fully depleting the photosite upon charge transfer from the photosite to

a drain by *implementing a pinned photodiode*, as opposed to by *controlling the channel potentials on turned-on drain transistor and transfer transistor*, as require in claims 1, 16, 27, 30, 32 and 33. Applying a specific type of photodiode is a different means from setting specific channel potentials of transistors. Therefore, Fox does not teach or even fairly suggest the above-mentioned feature.

Fossum and AAPA also fail to teach or suggest this feature, and the Office Action points to no such alleged teaching. Accordingly, Fossum and AAPA do not cure the deficiencies of Fox.

Because claims 2, 4-9, 17, 19-26, 28, 29 and 31 depend from claims 1, 16, 27 and 30, respectively, they are allowable for at least the same reasons as claims 1, 16, 27 and 30. The dependent claims also add additional novel and non-obvious subject matter.

In view of the foregoing, it is submitted that claims 1, 2, 4, 6-13, 15-23 and 25-28 are allowable and that the application is in condition for allowance. Notice to that effect is requested.

If extensions of time are required, the extensions are hereby requested. If any additional fees are required for the prosecution of the application, please charge the fees to Deposit Account Number 19-3140 referencing work order number 09792909-5698.

Respectfully submitted,

Dated: October 5, 2011

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